

Army Corrosion Prevention and Control Requirements



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Focused Workshop on Cadmium Plating Alternatives

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- Department of Defense Direction
- Army Direction
- Government Furnished Equipment
- Commercial Off The Shelf
- Materiel Programs

Department of Defense Directive DODD 5000.01

- Requires corrosion prevention and control (CPC) programs and preservation techniques be implemented throughout the lifecycle of all military equipment
- Requires Program Manager to establish a Corrosion Prevention and Control Plan (CPCP) for major acquisitions

Department of Defense Instruction DODI 5000.02

- Requires programs to consider CPC during the acquisition lifecycle process
- Requires corrosion considerations be included in trade-off analysis

Department of Defense Directive DoDD 4151.18, Maintenance of Military Materiel

- Corrosion shall be evaluated for its effect on logistics and readiness
- Conclusions/recommendations shall be used to implement CPC measures to avoid effect of corrosion on logistics & readiness

Chairman of the Joint Chiefs of Staff CJCSM 3170.01

- Requires the Programs to establish key performance parameters (KPP) that can be verified by testing.
- CPC falls under the Sustainment KPP since corrosion typically develops over time.
- Sustainment includes Key System Attributes (KSA)
 - Operational Availability
 - Materiel Availability

- Materiel shall meet the lifecycle and corrosion requirements when subjected to the conditions defined in the Operations Mode Summary / Mission Profile (OMS/MP)
- Only routine maintenance needed

System Design Lifecycle

- Includes corrosion performance
- Free of functional failures caused by corrosion
- Not expected to be corrosion-free

➤ Government Material

- May be attached to an end item
- May be consumed in the performance of a contract
- Includes such items as raw and processed material, components, parts, small tools, and supplies

➤ Gov Furnished Property

- Acquired by the government and provided to the contractor

- COTS items are purchased “as is” from commercial source

- Current target is generally 20+ years without failure due to corrosion, given routine maintenance
- Each Program has leeway to define target corrosion lifecycle